

# **WATER USER ASSOCIATIONS IN KAZAKHSTAN: AN INSTITUTIONAL ANALYSIS**

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## **I. Introduction**

The Aral Sea, lying in the heart of Central Asia and bordered by the former Soviet Republics of Kazakhstan and Uzbekistan, was once the fourth largest inland water lake in the world, covering slightly more than 66,000 km<sup>2</sup>. The near total diversions of the Amu Darya and Syr Darya river flows for irrigation, however, have shrunk the Aral Sea to a saline lake of less than half its 1960 surface area. The sea level has fallen 15 meters, and the subsequent tripling of salinity levels has devastated its ecosystems. The two natural deserts, the *Kara-Kum* (“black sand”) and the *Kyzyl-Kum* (“red sand”) deserts, that lie south of the Aral Sea in present-day Turkmenistan and east of the Aral Sea in Uzbekistan/southern Kazakhstan, respectively, have been joined by a third, artificial desert, sometimes referred to as *Ak-Kum* (“white sand”) or *Aral-Kum* (“Aral sand”). Apart from the disappearance of a rich resource base for the local communities, the continued shrinking of the Aral Sea has led to salinization of wide stretches of land, resulting in dramatic falls in soil fertility and serious effects on human health.

The expansion of irrigated agriculture in the Amu Darya and Syr Darya river basins in the 1960s and 1970s was the major cause of the drying of the Aral Sea. The Central Asian lowlands in the western part of the region, which cover most of the Aral Sea basin area, are characterized by low precipitation and very high evaporation rates. Agricultural production in these regions is possible only with substantial irrigation using the water resources of the two major river systems of the region, the Amu Darya and Syr Darya. These rivers are fed by rainfall and runoff from the mountains in the southern and southeastern parts of the region, which are marked by high precipitation rates and ample glacier runoff.

In 1994, the Harvard Institute for International Development (HIID) began assisting water resource officials and farmers in Kazakhstan to improve their management of irrigation water resources, with the objective of developing the institutions needed to raise the efficiency of water use in the region and increase flows to the Aral Sea. The primary focus of HIID’s program, which was supported by the United States Agency for International Development (USAID), was to create Water User Associations (WUAs) that would allow farmers to take responsibility for farm-level water use and irrigation infrastructure. This paper describes Kazakhstan’s experience in establishing WUAs, with an emphasis on the institutional barriers to establishing local associations created by the Soviet legacy of centralized planning and state ownership of resources.

The paper is organized as follows. The next section describes HIID’s involvement in water management in Kazakhstan, dating from 1994. Section 3 traces the process of privatizing Kazakhstan’s vast state farms, while Section 4 explains the need for organizations of water users in Kazakhstan. Section 5 provides a detailed analysis of the institutional obstacles facing new WUAs in Kazakhstan. The paper ends with recommendations and a summary of the current state of WUA development in Kazakhstan.

## **2. Background**

Because irrigation accounts for more than 90 percent of all water withdrawals in the Aral Sea basin, developing and implementing improved water management policies in the agricultural sector has been a critical element of foreign assistance programs in Central Asia. Throughout former Soviet Central Asia,

efficiency of irrigation water use is generally very low. Micklin (1991) reports a ratio of water withdrawals to normative crop water needs averaging at best somewhere between 2 and 2.5:1 for Uzbekistan. Because of the similarities in irrigation infrastructure and management, similar figures apply to southern Kazakhstan. Even modest improvements in irrigation efficiency would thus free large quantities of water to restore the Aral Sea.

HIID established a project in the Central Asian Republics late in 1994 as part of the United States' Aral Sea Program.<sup>1</sup> With the concurrence of the USAID Mission in Almaty, in 1995 HIID opened a dialogue with the Ministry of Agriculture and the Committee for Water Resources<sup>2</sup> of the Republic of Kazakhstan to explore the role of irrigation water management in the country's ongoing agricultural reforms. This activity was part of a larger USAID effort to address a wide range of regional water management problems, including water pricing and regional allocation of water resources.

Following initial discussions, the Ministry of Agriculture, the Committee for Water Resources, and HIID launched the Improved Management of Water Resources Project. The project was designed to address questions of institutional and economic reform of Kazakhstan's irrigated agriculture sector, with particular emphasis on the management of water delivery, irrigation, and drainage systems.<sup>3</sup> Since 1995, the project has been implemented by a permanent working group of Kazakhstani government officials and policy makers, members of hydrological research institutes, senior managers of hydro-technical facilities in southern Kazakhstan<sup>4</sup>, and HIID's resident advisors in Central Asia, with technical assistance from short-term consultants.<sup>5</sup>

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<sup>1</sup>HIID's activities in Central Asia are part of its Newly Independent States Environmental Economics and Policy Project, which works with government decision-makers in Central Asia and Russia to identify and promote cost-effective environmental and economic policies which foster sustainable development, regional stability, and the transition to a market-based economy. In the Central Asian republics of Kazakhstan, Uzbekistan, and Turkmenistan, HIID has focused on sustainable water allocation, the use of market-based instruments to reduce pollution, on macro-economic implications of energy development, and on the development of new environmental legislation.

<sup>2</sup> The Kazakhstan *Committee for Water Resources* is the successor to the Ministry for the Water Economy of the former Kazakh Socialist Soviet Republic (KazSSR). One of its main functions is to oversee and balance the water needs of all sectors of the economy (agricultural, domestic, and industrial) as well as to authorize water consumption by individual water users in Kazakhstan, including farms.

<sup>3</sup>Key members of the group also participated in the work carried out by HIID and the Committee for Water Resources on introducing a new approach to water pricing in Kazakhstan (see HIID Environment Discussion Paper XXX, *Water Legislation and Pricing in Kazakhstan*). HIID's efforts in Kazakhstan have been complementary to the work carried out by the USAID-sponsored Environmental Policy and Technology (EPT) Project in Uzbekistan and a similar project financed by the Asian Development Bank (ADB) in Kyrgyzstan.

<sup>4</sup> The following were members of the working group: K.K. Kudaybergenov, Head, Balkhash-Alakol River Basin Authority (until April 1997 Deputy Chairman of the Committee for Water Resources); M.A. Raptayev, Deputy Chairman; Zh. Alyakhasov, Deputy Head, Department for Irrigated Land, "KazAgroMelioVodKhoz"; O. Tasbulatov, M. Mukanova, G. Bertaev, all associates at "KazAgroMelioVodKhoz"; M. Nabiev, Chief, Section for the Technical Use of Water Facilities, Committee for Water Resources; M.Kh. Yesenov, Chairman, "KazAgroMelioVodKhoz"; V.V. Kulagin, Head, Hydro-Geological Irrigation Station, Zhetysay District; I.I. Shakibaev, Chief Engineer, Hydro-Geological Melioration Expedition, Taldykorgan Oblast; A.M. Mamazhanov, Director, Institute for Water Economy of Southern Kazakhstan (Zhambyl Oblast); D.D. Dzhumadilov, Head, Hydro-Geological Melioration Expedition, Southern Kazakhstan Oblast; P. Azhimbetov, Head, Hydro-Geological Melioration Expedition, Kzyl-Orda Oblast; V.N. Braga, Director, State Enterprise "Meliorator," Pavlodar Oblast.

<sup>5</sup> HIID Senior Environmental Policy Advisor Dr. Michael Boyd, HIID Resident Environmental Policy Advisor Richard Burger, and HIID short-term consultants Dr. Jane Gleason, Dr. Donald Lauria, and Dr. Mark Lusk. At the conclusion

Working group activities included regular meetings with HIID's resident advisors, national seminars with attendance from virtually every *oblast*<sup>6</sup> in Kazakhstan, technical studies and reports, and field visits to irrigated areas. Throughout the project, HIID cooperated closely with the World Bank, the Asian Development Bank (ADB), and the Japanese International Cooperation Agency (JICA) and kept in regular contact with the implementers of the World Bank's \$80 million Irrigation and Drainage Improvement Project, the ADB's \$100 million Agriculture Sector Program Loan, and the German Gesellschaft für Technische Zusammenarbeit (GTZ) technical assistance program.

### 3. Agricultural privatization in Kazakhstan

Conditions for the Improved Management of Water Resources Project were propitious in Kazakhstan. Beginning in 1991, the Kazakhstani government implemented a comprehensive economic reform program which included the complete removal of price controls on all goods and services, along with the privatization of most state enterprises. In the agricultural sector, the privatization process was largely completed in early 1996, when approximately 93 percent of the country's 2,300 state farms (*sovkhozy*) had been privatized and almost all former Soviet collective farms (*kolkhozy*) had been re-registered as private entities.<sup>7</sup> Most agricultural storage, distribution, and sales networks were privatized by late 1996, and the state's exclusive ownership of land was significantly relaxed.<sup>8,9</sup>

#### *The privatization process in the agricultural sector*

The privatization process proceeded roughly as follows:

- Prior to privatization, the State Committee for Privatization conducted an assessment of the value of the farm property, accounting for debt, inflation, and depreciation, and, based on a comprehensive

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of HIID's Cooperative Agreement with USAID in February, 1998, work on WUA development was transferred to the USAID EPIC Program, of which HIID is an implementer.

<sup>6</sup> An *oblast* is a "region" or "county," the major administrative unit of the Republic of Kazakhstan. Kazakhstan is divided into fourteen *oblasts* and one city of special status (Almaty). Oblasts are subdivided into *raiony* ("districts").

<sup>7</sup> The following brief summary of the main stages of the privatization process in the agricultural sector and of the land reform program in Kazakhstan focuses on those elements which are most relevant to the rest of the paper. It draws on information provided to HIID by the Ministry of Agriculture and the Department of State Property and State Assets of the Ministry of Finance, as well as on Gaynor (1996) and ADB (1997).

<sup>8</sup> Kazakhstan's new Constitution no longer prohibits private ownership of land. Depending on the type of land, its legally prescribed "targeted use," and the type of land holder, Kazakhstani law currently provides for three kinds of land holding: straightforward private ownership, permanent use rights, and temporary use rights. The rights and responsibilities for landowners and land-rights holders vary significantly. A description can be found in Gaynor (1996).

<sup>9</sup> The far-reaching nature of Kazakhstan's land reform and agricultural privatization program distinguishes it sharply from the other two main water consumers in the Aral Sea basin, Uzbekistan and Turkmenistan. Part of the reason lies in the fact that both of these countries rely on the cotton industry as a mainstay of their economies and important source of hard currency earnings. Therefore, neither Uzbekistan's nor Turkmenistan's government has had much incentive to restructure the agricultural sector, which in both countries is still characterized by large state orders for agricultural produce, controlled prices, and the dominance of large state and collective farms over private farm holdings. While Turkmenistan has seen little change on questions of agricultural production or land ownership, Uzbekistan has made some steps towards liberalization of its agricultural sector.

asset inventory of the farm, established a standard “property share” (*imushchestvennyi pai*) for each member of the farm.

- Similarly, a standard “land share” (*zemelnyi pai*) for each farm member was determined, based on the total acreage of the farm and the number of farm members, taking into consideration different land quality.
- The farm management conducted informal consultations to try to establish a consensus on the structure of the new farming entity, as well as on the allocation of property and land shares.
- At a general meeting, farm workers formally adopted the proposed new form for the farming entity, signed a founding agreement, established by-laws, approved the allocation of land and property shares, and elected a farm manager.
- Regardless of which new farm structure was selected, workers wishing to leave the farm and form independent or smaller farming units had the legal right to exchange their land shares for demarcated parcels of land.<sup>10</sup>

By far the most popular form of privatization proved to be the transformation of the former Soviet farms into relatively large collective enterprises, production cooperatives, and joint stock companies. Largely this was because most employees of the former Soviet farms lacked the management skills needed to run independent farms, although “semi-official” recommendations by *oblast* administrations favoring the establishment of large farming units also had an influence. In addition, managers of the former Soviet farms often saw the transformation into a collective enterprise, production cooperative, or joint stock company as a way to maintain their current positions. A more mundane reason for the relative popularity of production cooperatives is that, unlike various other forms of business partnerships, their establishment does not require a minimum charter fund.

On a more general level, the popularity of large farming units, which in many ways resemble the former Soviet farm structures, also reflects the fact that agricultural privatization was not so much driven from below—by farmers themselves—as it was part of an overall economic reform package. Throughout the former Soviet Union, and in Kazakhstan in particular, many farmers, who have been used to lifelong safe employment and the provision of comparatively modest but secure social benefits, were and remain skeptical of the benefits of privatization and fearful of the risks inherent in a market economy.<sup>11</sup>

Nevertheless, nearly all agricultural districts saw the creation of independent peasant farms, usually family-based. In most cases it took a good deal of courage for farmers to set up their own individual farm holdings, since most of them continued to depend heavily on the restructured Soviet farms for inputs, machinery, fertilizers, and access to distribution networks.<sup>12</sup> In addition, individuals breaking

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<sup>10</sup> Private ownership of agricultural land, with the exception of small plots for personal supplementary farming and horticulture, is not permitted in Kazakhstan. Instead, temporary and permanent use rights for agricultural land are granted by the state to individuals and organizations. A number of restrictions on land ownership and land use rights have prevented the formation of a land market in Kazakhstan. For a more detailed discussion of these issues, see Gaynor (1996) or ADB (1997).

<sup>11</sup> Frequently their fears are perfectly justified, especially in those areas of the former Soviet Union which in the process of colossal state programs to expand agricultural land were turned over to farming and financed by huge state subsidies. Without these subsidies, their climatic or soil conditions make agricultural activity unsustainable in a competitive environment.

<sup>12</sup> Even many large-scale farm types suffer from a lack of readily available tools and machinery. The sale “on the side” for a quick profit immediately before privatization of all kinds of moveable (and even immovable!) assets—from

away from the former Soviet farms were often allocated low-quality and/or badly irrigated plots of land or land parcels in the “downstream” part of the local irrigation system. While the number of private peasant farms is quite large, the vast majority of agricultural land continues to be held by very large collective enterprises, joint stock companies, and production companies.

### *Irrigation management on newly privatized farms*

Under the Soviet system, irrigation and drainage systems and related facilities were almost always managed by a single state or collective farm or, in the case of larger systems, jointly by the “dependent” state or collective farms with the participation of the local water management authorities (*raionnye upravleniya vodokhozaystvennykh sistem – UVS*). Practically all water delivery, flow measuring, storage, irrigation and drainage facilities, which had been carried on the books of Soviet farms, however, were excluded from the privatization program. This decision was primarily motivated by the “indivisibility” of these facilities, which had been designed and operated as unified systems. Accordingly, ownership and management responsibility for irrigation infrastructure at the farm level were formally transferred to the local UVS.<sup>13,14</sup>

It was quickly discovered that many UVS lacked both the funds and the expertise needed to manage and maintain irrigation systems.<sup>15</sup> In practice, therefore, farmers themselves often continued to take care of these systems to the best of their abilities. As the early farm privatization process had for the most part resulted in the emergence of large agricultural enterprises which were direct successors to the former Soviet farms and had largely unchanged management and administrative procedures, the need for new organizational forms specifically to address the management of irrigation infrastructure was

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small spades to large combines and entire roof-tops—was a common occurrence. These items did not, of course, make it into the asset inventories of the Soviet farms. The remaining machinery is now often collectively used on a rotating basis by all former members of the collective farm independent of their current status.

<sup>13</sup> Only end-of-the-pipe facilities, which are located on one parcel of land and the benefits of which clearly accrue to only one user, were allocated together with individual land shares. However, even most of those facilities cannot be operated independently of the larger unified system.

<sup>14</sup> The local water management authorities (*raionnye upravleniya vodokhozaistvennykh sistem - UVS*) are the district (*raion*) offices of the Committee for Water Resources which negotiate with irrigation districts the annual schedule and amount of water deliveries, collect water delivery charges and control water withdrawals. They are also the first “port of call” for agricultural water users to apply for water rights under Kazakhstan’s system of “special water use” (*spetsalnoe vodopolzovanie*). “Special water use” requires individual permits, usually granted annually by the Committee for Water Resources on the basis of the relevant region’s overall water balance. “Special water use” includes all water withdrawals with the exception of those with only an insignificant effect on the quantity or quality of any given water body and/or withdrawals which do not require any special technical facilities (private draw-wells, open public wells in villages, etc.). Since the break-up of the Soviet farms the UVS are also in charge of the maintenance of inter-farm irrigation and drainage facilities. Questionnaire surveys conducted by HIID have shown that often farmers are not aware of the current ownership status of inter-farm irrigation systems.

<sup>15</sup> Repeated reorganizations of the Kazakhstan’s government structures have, inter alia, led to a noticeable reduction in the capacity of water-related agencies. For instance, the status of the former, once relatively powerful Ministry for the Water Economy was repeatedly diminished in the 1990s, beginning with its reorganization into the State Committee for Water Resources in 1991 and culminating with its incorporation as the *Committee for Water Resources* into the Ministry of Agriculture in March 1997. At the same time, the head office of the Committee for Water Resources saw its permanent staff dwindle from more than 180 to fewer than 30. Similar cuts have taken place at the Committee’s field offices in the *oblasts*, leading to the neglect of many necessary and routine maintenance, monitoring, and management tasks.



initially not very great. This situation began to change, however, as the restructuring process continued and more individuals set up their own private farms.

In the absence of a unified management structure for irrigation districts, many farmers spontaneously started to unite—or attempted to unite—into loose and frequently informal “associations of water users.” Most of them were hampered, however, by the lack of an appropriate and legally recognized entity under Kazakhstani law that corresponded to their specific needs and through which they could conduct their business, and by the absence of funds or credit mechanisms for the repair and maintenance of irrigation facilities.

The fate of inter-farm irrigation systems in Kazakhstan is unclear at present. Some officials, backed by numerous farmers, support their full privatization. However, according to officials from the Department for the Management of State Property and State Assets, a free-of-charge handover of inter-farm water systems will *not* take place, either to individual farmers in the form of additional property shares from the former Soviet farm or to water user associations. The Government's current view is that all state property will be privatized strictly by tender and according to its market value.<sup>16</sup>

Other officials favor a more conservative approach to the future state of those systems. In view of the fact that the beneficiaries of large-scale irrigation and drainage systems include not only the users (farmers) themselves, but also the population of the corresponding district at large, they suggest the transfer of such systems “into local public ownership” (*v kommunalnuyu sobstvennost*), i.e. onto the books of local administrations, with a corresponding increase in their fee-levying power (“devolution” rather than “divestiture,” as it were).

#### **4. The need for water user associations in Kazakhstan**

It was against this background that the Improved Management of Water Resources Project set out to address some of the water-related institutional gaps created by the privatization of the agricultural sector in Kazakhstan. A number of already existing and potential new problems pointed to the pressing need to find new institutional arrangements for taking care of existing irrigation infrastructure networks:

- The existing irrigation systems presumed unified management, which was frequently lost during the breakup of the former Soviet farms during privatization. In a typical irrigation district under the Soviet farm system, the local water management authority (UVS) would normally have dealt with only a few collective or state farms. At present, the UVS often face up to several hundred farming units for which they have to negotiate “special water rights” and water delivery schedules, collect water payments, arrange for repairs, etc. Most UVS have found themselves physically unable to cope with the sharp increase in the number of new water users.
- At the same time, the lack of flow measuring devices for most of the new, independent farming units has made the monitoring of individual water withdrawals and, correspondingly, individual fee

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<sup>16</sup> However, it may be difficult to define a “market value” for irrigation and drainage systems for which the buyers’ market frequently is a set of only one, namely the local WUAs.

collection for water deliveries practically impossible. There is thus no financial incentive for farmers to conserve water.

- The sharp increase in users who operate their share of the irrigation system independently of other users has started to subject many systems to severe organizational and physical burdens. In some areas tensions have developed between private farmers, who usually control only small irrigated areas, and larger farming units such as production cooperatives, joint stock companies, and collective enterprises over the amount and timing of water releases.
- On-farm irrigation and drainage systems are in poor condition because most private farmers, as well as other new farm entities, do not have funds for the upkeep of these systems, the majority of which already suffer from bad construction.<sup>17,18</sup> The continuing changes in Kazakhstan's water management agencies have in many cases left responsibility for the management and maintenance of inter-farm canals ambiguous, which has caused further physical deterioration.

The project's main efforts were thus directed at supporting the consolidation of agricultural water users into independent organizations.

#### *Water user associations*

One institutional approach that has proven to be a potentially effective way to address such problems in other parts of the world is to grant the stakeholders more direct responsibility over the systems upon which they depend by forming agricultural water user associations or organizations (WUAs). A water user association is a voluntary, self-governed, organized group of irrigators who, although maintaining individual control of their land, crop choices, and marketing, work cooperatively to manage and maintain the local irrigation systems that serve their farms. Water user associations range in size from only a few to several hundred farms and from a few to several thousand hectares.

The primary function of water user associations is typically to manage the annual flow of irrigation water from the main feeding canal, coordinate the sharing of irrigation water among the different farming units, and assume responsibility for the maintenance and repair of the on-farm infrastructure (such as pumps, storage reservoirs, drainage wells, drainage collector system, etc.). Once properly registered and put on a secure legal basis, WUAs can also become an effective way for farmers to represent their interests vis-a-vis local and national authorities on a wide range of issues relating to the allocation of water rights and the administration of irrigation infrastructure.

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<sup>17</sup> Similar to other infrastructure systems, the majority of Kazakhstan's water extraction, storage, delivery and monitoring systems is in a neglected and often ruinous state. To a large degree this is part of the Soviet legacy of careless construction and inadequate management of public utilities. As a consequence, many even relatively recent facilities are in acute need of repair and reconstruction. For instance, water losses from seepage in irrigation systems caused by faulty canal linings exceed 50% in some areas.

<sup>18</sup> The situation was easier for large but moveable assets of the former Soviet farms, such as trucks, ploughs, tractors, combines, and other agricultural machinery. Frequently in the process of farm restructuring farmers decided to pool their (essentially indivisible) technical equipment by creating separate "agro-equipment stations" (*motorno-traktornye stantsii*) which now provide the new farming units access to agricultural equipment on a rental basis. By and large these agro-equipment stations serve the territory of a former state of collective farm.

In addition, a WUA can be an effective mechanism for resolving conflicts that arise over water allocation to other users outside the association and over payments for water deliveries, especially in the absence of individual meters. In a post-Soviet context they are also seen as a vehicle for promoting direct democracy and a participatory approach to problem solving and policy making. Finally, where water user associations are properly managed, they have frequently turned out to be a useful basis for coordinating other activities of farmers within one irrigation area: agreeing on rotating cropping patterns for more efficient use of the limited water supply, sharing farming equipment, marketing the harvest, obtaining credits, and so on.

### *Government benefits of establishing WUAs in Kazakhstan*

Under current conditions in Kazakhstan's agricultural sector, the formation of WUAs also offers clearly identifiable benefits for governmental agencies:

- WUAs provide a single point of contact for negotiations, contracts, and dispute resolution between water users and local water management authorities (UVS), thereby significantly easing the latter's serious administrative burden caused by the break-up of the Soviet farm system.<sup>19</sup>
- WUAs can facilitate the introduction of water pricing, which is at present complicated by the lack of measuring devices for water deliveries to individual farmers. Many district UVS, which according to Kazakhstan's water pricing legislation are charged with overseeing fee collections for water deliveries, clearly lack the resources to do so. Water deliveries could be measured at the point of delivery to the WUA, which would then handle deliveries to and fee collection from its members, based on an individual's irrigated acreage or other measure.
- Strong WUAs can in the future take full ownership of existing irrigation and drainage systems, which the government authorities are no longer able to manage and maintain.

## **5. Obstacles to the expansion of WUAs in Kazakhstan**

Beginning in 1995, the Improved Management of Water Resources Project identified a number of problems with the introduction of water user associations in Kazakhstan. Some of these are clearly rooted in Kazakhstan's Soviet past, while others stem from the country's more recent independent history.

- Some private farmers, who have only just "broken free" from a collective or state farm, harbor suspicions of WUAs as a hidden form of "re-collectivization." Such fears seem to be prevalent in

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<sup>19</sup> Several district UVS have already facilitated the process of establishing WUA by providing standard founding documents, helping farmers to register, etc. At the same time, the relationship between district UVS and emerging WUAs is an ambivalent one, with some UVSs seeing certain of their functions undermined by the formation of strong WUAs which demand the formal hand-over of those irrigation facilities for which they have assumed *de facto* management and maintenance responsibility.

areas where private farmers still depend heavily on large-scale farming units for access to the irrigation system, technical equipment, etc.<sup>20</sup>

- On the other hand, farmers who continue to engage in “Soviet thinking” (“who are still steeped in Soviet-style parasitism,” as one head of a farmers association put it) do not seem fully reconciled to the fact that a WUA is *not* a collective structure along the lines of the former Soviet agricultural enterprises, which received generous state subsidies and were able to provide lifelong secure employment and social benefits. Some farmers also seem to harbor excessive expectations of WUAs as an almost automatic means of obtaining cheap agricultural credits.<sup>21</sup>
- In many other countries, the primary motivation for farmers to unite into formal associations is to establish a cooperative fee-collecting mechanism that generates sufficient funds to cover O&M expenses of common irrigation and drainage facilities. In Kazakhstan, in contrast, the main motivation for the creation of WUAs was to take up from the defunct Soviet farms the task of negotiating annual water deliveries with the UVS and to ensure a fair distribution of water among its members. The WUAs were thus expected to fulfill primarily a coordinating and representative role. Accordingly, Kazakhstani farmers placed their initial emphasis on water allocation agreements with the UVS and did not pay enough attention to fee-collection mechanisms or sanctions against members in case of non-payment.

Most of the early WUA charter documents contained either no or only vague fee-collecting and non-payment provisions. Farmers interviewed by HIID confirmed that they “did not believe that problems with non-payment by members of a WUA would arise”—meaning they were very confident that social pressure would force members to conform to a WUA’s sometimes loose rules. As it turned out, several WUAs came to appreciate the importance of creating workable financing mechanisms for maintenance and repair costs only after problems arose.

- Lack of hard cash appears to be one the main problems confronting WUAs after they have registered. Farmers and representatives of registered WUAs frequently voice concern about their perceived “impoverishment” as a result of the break-up of the Soviet farm system and the end of heavy state subsidies to the agricultural sector. While it is undoubtedly true that several rural areas in Kazakhstan have experienced a severe decline in living standards over the past five years, “lack of available cash” rather than outright “poverty” seems to be the more acute problem. Many of the services which farmers have to purchase (electricity, gas, fuels, pesticides, herbicides, water, etc.) are paid for in kind, and WUAs are forced to resort to round-about ways of collecting membership contributions in kind.

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<sup>20</sup> In this context it should be noted that the forced collectivization of the rural population into Soviet farms from the late 1920s on was particularly traumatic for the Kazakhs, who had traditionally been a nomadic people. “...Kazakh herdsmen slaughtered their sheep by the million rather than hand them over to collective farms. More than 800,000 peasant farmers in Kazakhstan alone were done away with” (Whittell, 1993). In some instances farmers’ fears may be perfectly legitimate. We have observed a number of former state or collective farm managers who realize that the creation of a WUA may be a way to either continue or re-create their former management structures and thus offer an opportunity to maintain their position of local power and influence, with all the attendant perks and privileges for themselves.

<sup>21</sup> Lacking information about existing credit options, few though they may be, many farmers who were polled by HIID quoted “obtaining credits” as one of their primary motivations for joining a WUA.

- Finally, voting structures in the general assembly of a WUA also received insufficient attention by farmers in the initial stages of WUA formation.

Ostensibly in an effort to broaden and deepen the privatization process in the agricultural sector, the government of Kazakhstan in early 1996 decided to launch a program of public tenders to offer “private associations of water users” the right to bid for the management responsibility of a number of water systems, such as irrigation networks, primary and secondary delivery canals, and pumping stations.<sup>22</sup> To a large extent, this decision was motivated by the fact that the government agencies that had been put in charge of running those facilities (the local UVS) had in practice proven unable to do so.

The results of the first public tenders were disappointing. In two *oblasts* no proposals were received during the bidding process at all, while in a third *oblast* the management of only a third of the offered facilities could be transferred to “private organizations of water users.” The reason lies in the inability of most private organizations to pay for or to obtain external financing (loans, subsidies, etc.) for the upkeep of such facilities.<sup>23</sup>

## 7. Recommendations

To continue to push the development of WUAs forward, in late 1997 the Improved Management of Water Resources Project produced a “Practical Guide to the Formation of Water Users Organizations in Kazakhstan.”<sup>24</sup> The manual, which was printed in Kazakh and Russian (with an English summary) and distributed widely to farmers, WUA heads, and government officials, included:

- A detailed analysis of legal (registration) provisions for WUAs under current legislation.
- An analysis of the tax obligations for different types of organizations.

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<sup>22</sup> Lately, the Government has reduced the list of water facilities that are excluded from the privatization process. Now only water facilities of international or inter-*oblast* significance must remain state property, while all other water facilities may (but need not) be privatized. So far, no privatization program for such facilities exists, although various ideas, including the complete privatization of all water facilities, have been voiced by government officials. More information and additional assistance to the relevant government agencies to help in the selection of realistic options for the long-term viability of such facilities is needed. Most Kazakhstani officials have little or no experience with the concept and the practice of mixed ownership of public and semi-public utilities, or with private management or service arrangements for publicly owned utilities (for instance, with direct stakeholder participation in the ownership and/or the management of such facilities).

<sup>23</sup> In an effort to make the program more popular, the authorities admitted practically any non-state organization, commercial and non-commercial, to the tender process, as long as it can demonstrate that it “represents the interest of the (local) water users.” However, according to an official from the Department for the Management of State Property and State Assets, one of the problems the tender authorities have encountered is that in practice only well-established, sizable commercial enterprises have both the expertise and the capital to manage and maintain most larger water facilities. Nevertheless, most bids from such companies were rejected in the evaluation process for fear of creating a monopoly over the local water supply.

<sup>24</sup> The working group that compiled the manual consisted of experts from the Tax Committee of the Ministry of Finance, the Agency for the Registration of Real Estate and Legal Entities of the Ministry of Justice, and the Department of State Property and State Assets of the Ministry of Finance. Its work was coordinated by K. Kudaybergenov, Chairman of the Balkhash-Ala-Kol River Basin Authority (formerly Deputy Chairman of the Committee for Water Resources), and Richard Burger of HIID.

- A description of the current status of on-farm and inter-farm property assets and comments on plans for their future privatization.
- A model founding agreement for the establishment of an Association (Union) of legal entities, model charter of an Association (Union) of legal entities, and model charter of a Users' Cooperative<sup>25</sup> of physical entities, in accordance with Kazakhstani legislation.
- A brief overview of the fees and other costs incurred in registering a WUA.
- An inventory of key legislation (laws, government resolution, presidential decrees, by-laws) pertaining directly or indirectly to the formation and activities of WUAs in the Republic of Kazakhstan.

The guide draws particular attention to the importance of enforceable fee collection mechanisms and acceptable voting arrangements for the long-term viability of WUAs. It contains two sets of recommendations, one for farmers in irrigated areas and the other for Kazakhstani policy-makers and government officials.

*Key recommendations for farmers in irrigated areas*

1. Farmers should study their legal options carefully. They should make sure to understand the different rights and responsibilities, as well as the different tax obligations, that the available legal registration options impose on WUA members. Unless there are clear reasons to form a commercial enterprise which will also take on water management responsibility, WUAs should register as non-commercial organizations. Tax obligations may threaten the survival of fledgling WUAs which choose to register as commercial organizations. The most appropriate options for individuals ("physical entities," e.g. heads of peasant farms) to unite into a WUA according to the Kazakhstani Civil Code are Public Associations and Users' Cooperatives. Associations (Unions) are the most appropriate (indeed, the only possible) way for legal entities to form non-commercial organizations. Importantly, however, both commercial and non-commercial legal entities can unite into an Association (Union).
2. Farmers should pay attention not only to whether and to what extent their planned WUA will engage in commercial activity, but also to how property relations between their members are regulated in accordance with the different registration options. They should take note of the fact that a non-commercial organization may—within certain limits and on certain conditions—also engage in commercial activity, for instance by becoming a (founding) member of a commercial organization.
3. WUAs should not rely too heavily on "social pressure" to ensure cooperation among members and should not underestimate the potential problem of non-payment (default on financial obligations) by members. They should pay particular attention to what kind of decision-making structure (voting

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<sup>25</sup> Cf. Appendix 1, "A Note on Terminology."

pattern), fee-collection enforcement mechanism, and sanction mechanism in the case of default are most appropriate to their situation.

4. WUAs and individual farmers should make sure that they have the necessary long-term financing mechanisms in place to cover O&M costs before demanding the formal handover of the inter-farm water facilities for which they have assumed *de facto* management responsibility.
5. Finally, farmers should lower their expectations as to what WUAs can do for them. They should start small and not try to solve all their problems by means of a WUA. Rather, they should set up their WUA in such a way that it may later extend its activities, for instance to take care of marketing, harvesting, distribution and sales, etc.

#### *Key recommendations for Kazakhstani policy-makers and government officials*

1. Legislators<sup>26</sup> at all levels should be more closely informed about current developments in the irrigated agricultural sector. Existing Kazakhstani legislation lags behind actual developments “on the ground” and fails to provide the necessary legal framework for a number of new activities or institutions which have merged as a result of the privatization process. Specifically, the following should be considered:
  - a) The legal basis for members of an Association (Union), Users Cooperative, or Public Association to choose voting mechanisms for the management of their organization freely, according to its needs, has to be clarified.<sup>27</sup>
  - b) Absent legally defined sanctions mechanisms against members of non-commercial organizations who consistently and repeatedly default on their financial obligations, the legality and enforceability of self-imposed sanctions mechanisms needs to be clarified. For instance, can a Users’ Cooperative or an Association (Union) take possession of the private property of a member who has repeatedly failed to meet his financial obligations?

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<sup>26</sup> The term “legislator” is meant to include the President and Government of the Republic of Kazakhstan, not just the Parliament of the Republic of Kazakhstan. Although the Parliament is the primary legislative body, a large part of Kazakhstan’s legislation is issued by the executive in the form of Presidential Decrees and Decisions and Government Resolutions. While laws passed by Parliament require presidential approval, Presidential Decrees (“having the force of law”) cannot be overturned by Parliament. Similarly, Government Resolutions do not require parliamentary approval.

<sup>27</sup> Most Kazakhstani lawyers we consulted automatically assumed that each member of a non-commercial organization (irrespective of its specific legal status) would have one vote in the general assembly. When asked whether it was possible for those organizations to determine for themselves other voting structures, for instance by allocating votes weighted by the irrigated acreage of each member, some lawyers doubted that this was “perfectly legal.” In many cases uncertainty about the scope of interpretation of current legislation (such as doubts about the freedom of organizations to write their own internal rules) is a remnant of the Soviet legal culture in which “everything that was not explicitly permitted was assumed prohibited,” unlike much of Western legal culture in which “anything that is not explicitly prohibited is assumed permitted.” Although the traditional Soviet approach to interpreting the letter of the law is now changing, it seems advisable to check on the freedom of (non-commercial) organizations to establish and follow their own rules of operation. This may forestall potentially unpleasant and costly legal proceedings in the future, such as challenges in court by a dissatisfied member to a decision taken by an organization.

- c) A number of other legal provisions in the Civil Code require clarification, for instance the legality of tying the “subsidiary responsibility” (*subsidiarnaya otvetsvennost*) of members in an Association (Union) to their irrigated acreage.
2. Legal options should be created for registering WUAs whose membership consists of both physical entities (e.g. heads of peasant farms) and legal entities (e.g. a production cooperative). At present, none of three most appropriate legal options for the registration of WUAs—Public Associations, Users’ Cooperatives, and Associations (Unions)—admits the simultaneous membership of both legal entities and physical entities. Only physical entities, i.e. individual citizens, can form a Public Association or a Users’ Cooperative, and only legal entities can form an Association (Union).

However, the majority of former state and collective farms that during the privatization process transformed themselves into one of the “larger” private structures (production cooperatives, joint stock companies, collective enterprise) saw at least some of their former members break away to form independent “peasant farms” (usually, but not always, family-run entities). Confusion has reigned about the legal status of “peasant farms.” It appears that a peasant farm is a physical entity, although in many cases pressure was put on the heads of peasant farms to register as one of the possible types of legal entities.<sup>28</sup>

As a result, in many irrigated agricultural districts where all or most existing farming units depend on one unified irrigation system and would naturally form one common WUA, there is no simple way for them to do so. Private individual farmers (peasant farms) would first have to register individually as legal entities or jointly form a legal entity in the form of a Public Association or a Users Cooperative before being able to unite with the larger farm units into an Association (Union). However, the multiple legal and registration fees, obligatory (pension, unemployment, insurance, etc.) fund payments, and management obligations which arise through such multi-level legal constructions are frequently too burdensome for small private farm units to be able formally to join such a WUA.<sup>29</sup>

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<sup>28</sup> According to Gaynor (1996), “This confusion probably grows out of the Law on Peasant Farms which by its very existence suggests that a peasant farm is a legal entity. ...It is the product of a time when other laws such as the Civil Code and Land Code had not yet been adopted so it was necessary to authorize individuals to conduct farming activities outside the state and collective farm structures.” A new “draft law on peasant farms” has been prepared by the Ministry of Agriculture. The draft clearly envisages peasant farms to consist of family members only and provides for the existence of such peasant farms as physical entities. However, in an attempt not to undermine the legality of peasant farms which, for whatever reason, have already registered as legal entities, the draft appears implicitly to permit the continued existence of peasant farms as legal entities. While Gaynor (1996) may be right in his judgment that (technically) “there may not be a need for special legislation governing peasant farms,” the Ministry of Agriculture’s “draft law on peasant farms” is an honest attempt to clarify the legal rights and responsibilities of peasant farms and their members without forcing them to undergo the sometimes cumbersome and costly registration procedure for legal entities. The draft law aims specifically to clarify the standing of peasant farms vis-a-vis larger farm units upon which they frequently depend in a number of ways, as well as vis-a-vis local officials who, absent clear legal guidelines on the status of peasant farms, have frequently imposed arbitrary, and disadvantageous, rules and regulations on them.

<sup>29</sup> The only theoretical alternative is for individual farmers (peasant farms) and larger farm units (legal entities) to come together in a non-commercial organization is to form an Institution (*uchrezhdenie*), but Institutions have not traditionally been formed in Kazakhstan for the types of functions a WUA would fulfill and all Kazakhstani lawyers



3. The government should investigate ways to provide more accessible medium and long-term loans at affordable interest rates and with realistic pay-back periods for the rehabilitation of inter-farm (and on-farm) water systems. To date, the government's rural reform program has paid little attention to the creation of financing options for the rehabilitation of irrigation systems. This issue will gain in importance and urgency as the government proceeds to seek ways to transfer inter-farm water systems from the UVS to "private associations of water users." Also, for the transitional period, co-management and co-financing mechanisms which jointly involve the local water management authorities (UVS), emerging water users' organizations (WUAs) and, perhaps, local administrations should be explored more actively. We also recommend further investigation of the possibility of using irrigation systems and land use rights as collateral for bank loans.
4. WUAs which have taken on responsibility for the management and operation of water systems but which have not assumed ownership of them could be exempted from obligatory property tax payments on these facilities. Property tax exemptions could be phased out once the ownership status of inter-farm irrigation and drainage systems has been settled.<sup>30</sup>
5. Government officials should work closely with farmers and local water management officials to analyze the short-term and long-term needs of farmers-irrigators. They should prepare concrete steps for modifying existing legislation or creating new legislation which can accommodate the long-term needs of WUAs, especially for activities that go beyond the coordination and arbitration of water-related interests at a more advanced stage of their development, such as acting as credit unions to service loans for major repairs or the extension of the existing facilities.
6. Policy-makers should support the development of training modules on financial and management issues for WUAs. Support for such training modules, which at a minimum should cover accounting techniques (including capital depreciation methods), expenditure and income planning, audit procedures, preparation of credit proposals, etc., could be solicited from international financial and donor organizations.

We do not recommend the quick and uncritical adoption of foreign "blueprints" for WUAs in Kazakhstan. Kazakhstan's current institutional arrangements, rooted in the country's recent Soviet past, distinguish it in many important respects from other countries with a comparable level of economic development. But if the current momentum among farmers and WUAs is not to be lost, policy-makers and government officials should use the available experience of the country's first WUAs expeditiously. Widespread failure of the country's first WUAs, founded mostly on farmers' own initiatives, could sabotage an important opportunity restructuring of Kazakhstan's agricultural sector. Such failure will be more likely to occur concrete steps toward modifying existing legislation or creating new legislation are not taken in the very near future.

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interviewed by us agree that the registration of a WUA as an Institution would not correspond to the intention of the law.

<sup>30</sup> According to the Kazakhstan Tax Code, at present all physical and legal entities are liable to paying property tax on any property which they hold in their ownership, for whose management and operation they have been legally entrusted, or for which they hold management and user's rights.

While current legislation is just about sufficient to allow the emergence of simple forms of water users' organizations, it is inadequate to accommodate the long-term needs of such organizations. In particular, current legislation is insufficient to allow basic forms of WUAs to assume functions that go beyond the coordination and arbitration of water-related interests at a more advanced stage of their development, such as acting as a credit union to service a loan for major repairs or the extension of the existing facilities.

## **8. Conclusion**

In Central Asia, the establishment of WUAs offers a unique opportunity to build on the still intact social cohesion left behind by the former Soviet farm system. Unrealistic expectations and insufficient human and financial resources for long-term viability are perhaps the two most important WUA-related issues requiring further local policy-makers' and international organizations' attention and assistance in Kazakhstan. They become particularly urgent in view of the Government's attempts to find suitable heirs for the management of irrigation and drainage infrastructure which it is no longer able to maintain. The creation of well-structured and well-managed WUAs is arguably the logical next step in reforming Kazakhstan's agriculture sector. It is clear that the creation of new local-level water management institutions that give more responsibility and greater incentives to farmers to improve the condition of irrigation systems and to economize on the use of irrigation water is an important step in the effort to privatize Kazakhstan's agricultural infrastructure and address the ecological crisis of the Aral Sea.

For WUAs to become an effective means in the overall management of Central Asia's water resources, however, they need to be part of region-wide and nation-wide mechanisms for allocating the limited amounts of water that are available in Central Asia. Their establishment must therefore be accompanied by complementary regional and national policies in the areas of water pricing, water rights, and land reform.

## Appendix 1: A Note on Terminology

The term *assotsiatsiya vodopolzovateley* has come to be the standard way in Russian to refer to “organizations of water users” in general. It is a direct translation of the English “water users’ association” and is used in the few available Russian translations of the relevant literature. Somewhat unexpectedly, the term has caused a fair amount of confusion in Kazakhstan.

The English “association” is, of course, a blanket description for any group of water users who have come together into an organized structure for the coordination of their common and shared interests in a unified water storage, delivery or drainage system.

Kazakhstani legislation, in particular the Civil Code, provides for the establishment and registration of both commercial and non-commercial organizations. Apart from “Institutions” (*uchrezhdeniya*), “Public Unions (Associations)” (*obshchestvennye ob’edineniya*), “Public Foundations” (*obshchestvennye fondy*), “User (Consumer) Cooperatives” (*potrebitelskie kooperativy*), and “Religious Unions (Associations)” (*religioznye ob’edineniya*), the Civil Code also provides for “Associations(Unions)” (*assotsiatsii(soyuzy)*) as a legally recognized form of non-commercial organizations.

This has led many people in Kazakhstan, specialists and non-specialists alike (lawyers, *oblast* and *raion* registration officials, farmers, civil servants) to believe that it is exactly the (legally recognized) form of an “Association” which is recommended as the (most) appropriate legal status for an “organization of water users” in Kazakhstan.

This confusion became apparent to members of the HIID Central Asian office only some time *after* the Russian (and Kazakh) terms “association of water users” had already become common parlance. Since then, we have made consistent efforts to explain that the Russian *assotsiatsiya vodopolzovateley* is meant as a general reference to any organized group of water users and that in different areas of Kazakhstan, and depending on the exact local conditions, an “Association” as recognized by Kazakhstan’s Civil Code may or may not be the appropriate legal status for such a group.<sup>31</sup>

Indeed, our analysis of the Civil Code and of the tax obligations arising from the various legal options for the registration of groups of water users have shown that in many cases an Association(Union) as recognized by the Civil Code may *not* be the appropriate option, indeed, in many cases it will not even be a legally *permissible* option.

An inverse problem exists for English translations of Kazakhstani legislation. The Russian terms *assotsiatsiya* and *ob’edineniye*, which Kazakhstan’s Civil Code uses to distinguish between different kinds of legally recognized, non-commercial organizations, both translate as “association” into English.

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<sup>31</sup> The Russian term *ob’edinenie*, which in its generality is close to the English “association,” likewise denotes a legally recognized, non-commercial type of organization under the Kazakhstani Civil Code. Therefore, for general references to organized groups of water users the only alternative would be to use the Russian *organizatsiya vodopolzovateley* (“organization of water users”). However, the Russian *assotsiatsiya vodopolzovateley* has already become so widely used, that attempts to effect a change in the day-to-day use of the terms have little chance of success. Therefore, we recommend to engage in continued efforts to explain the difference between the casual and the legal use of *assotsiatsiya*

This has led to some confusion even amongst foreign lawyers who have analyzed relevant Kazakhstani laws and regulations.

One possible way to avoid misunderstandings is provided by the Civil Code itself, which refers to (non-commercial) legally registered groups of *legal* (as opposed to *physical*) entities as “Associations(Unions)” (*assotsiatsii(soyuzy)*). Accordingly, this paper uses the simple “Associations” (of physical entities) to translate *ob’edineniya*, and uses “Associations(Unions)” (of legal entities) to translate *assotsiatsii(soyuzy)*.

Also, capital letters are used to refer to the corresponding entities as they are legally recognized by Kazakhstani legislation, i.e. Association(Union) to refer to *assotsiatsiya(soyuz)*, Public Association to refer to *obshchestvennoe ob’edinenie*, Public Foundations to refer to *obshchestvennyi fond*, Religious Associations to refer to *religioznoe ob’edinenie*, Users’ Cooperatives to refer to *potrebiteleskii kooperativ*<sup>32</sup>, etc.

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<sup>32</sup> Some English-language documents have translated the Russian *potrebiteleskii kooperativ* as “consumers’ cooperative.” While it is true that in the past most such cooperatives in Kazakhstan were indeed “consumers’ cooperatives” (in the sense of “purchasers’ cooperatives”), we prefer to use the term “users’ cooperative” instead. First, because it is closer to the legal definition of the Russian term (the purpose of such an organization is defined to be “the satisfaction of material and other needs of its members by means of pooling their individual (proportional) in-kind or in-cash contributions”), and second, because it is more appropriate in the context of the current discussion.

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